OPERATORS MANUAL

GO Electric Start Diesel Driven Pump Kit DN50 Inlet / DN40 Outlet QP205SE/ L48EVITES

Reliable Products, Reliable People

GO Industrial has developed a reputation for innovation and quality that has lead to a rapid market acceptance in Australia and throughout the world. Our rapid growth is based on five simple principles.

Performance

A genuine dedication to deliver products that out-perform and out-feature all others, leading to better outcomes for users.

Quality

A relentless drive for quality that delivers lower through-life costs and improved ecological outcomes

Value

A pricing policy that delivers excellent products at fair prices.

Prompt Delivery

A commitment to build and deliver on time

After Market Support

To provide through-life support through well trained, professional and motivated distribution team both in Australia and throughout the World.

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Keep this owner's manual handy so you can refer to it at any time. The GO Industrial owner's manual is considered a permanent part of the pump and should remain with it if resold.

The information and specifications included in this publication were valid at the time of printing however, GO Industrial reserves the right to discontinue or change the specifications or design any time without notice and without incurring any obligation.

NOTE: Electric start units are supplied with either an Absorbed Glass Mat gel battery or a dry battery i.e without electrolyte (as per Australian legislation). Dry batteries must be filled with a suitable acid/water solution and then charged before use. Consult your nearest battery specialist.

Due care must be taken when handling batteries; eye, face & skin protection must be used.

SAFETY ALERT

To get the best out of your Pump these important warning notices need to observed.

Before starting the pump read Pump Operators manual.

Please note that this pump manual does not include full operation or maintenance instructions for the engine. Refer to the engine manufacturers manual supplied.

- **No oil is supplied with the engine.** Oil must be added in accordance with the engine manufacturer's instructions. (Relevant to four stroke engines only).
- Four stroke petrol engines supplied with our Pump products use unleaded gasoline.
- **Pump must be primed** before starting. Fill pump body with liquid. Pump must not be allowed to run without liquid passing through the casing. DO NOT run pump either dry or with insufficient water supply. Pump supply or delivery lines must not be shut off.
- Do not use the pump in a gaseous or hazardous environment or near combustible material.
- Do not use the pump in an enclosed area, engine exhaust could build up and cause asphyxiation.
- Do not refuel engine while operating. Shut engine down before refueling.
- **Do not run pump dry.**
- **Do not start engine if there is a possibility that water has frozen in pump or pipework.**
- Some engine components will get hot during operation. Do not touch engine components while engine is running or immediately after operation. For details check engine operator's manual.
- Do not let children operate the pump.
- Familiarise yourself with the pump's controls with emphasis on how to stop the pump quickly.
- Always refuel in a well ventilated area, do not smoke or allow flames or sparks in the refuelling area or where gasoline is stored.
- Do not over fill the fuel tank, as spilled fuel can ignite if it comes into contact with hot engine parts or sparks. After refueling, make sure tank cap is closed properly and is secure.
- Protect your pump from pressure spikes by installing a by-pass or pressure relief valve if sudden shut off of the water flow is likely to occur.
- If your pump is supplied with an Absorbed Glass Mat dry cell battery gel battery, the battery **must** be recharged using a **Trickle Charge battery charger**. Contact a battery specialist for further assistance.

For maximum performance, efficiency and life, operate the pump at the best efficiency point … 85% of total pump head.

When installing a self priming pump, always remember that the closer the pump is placed to the source of supply the better the performance will be.

To ensure maximum capacity select a site that will permit the shortest and most direct suction piping and smallest vertical lift.

Set the pump on firm and level foundations with good drainage.

Connecting the Suction Hose

Use commercially available hose, hose connector and hose bands. The suction hose must be of reinforced non collapsible construction, suction hose length should not be longer than necessary as the longer the suction hose, the less delivery performance of the pump. Self priming time is also proportional to suction hose length!

Strainer should always be used on the end of the suction hose to keep solids out of the pump.

Check carefully to make sure there are no air leaks in the suction line and that the rubber gaskets are in good condition.

Connecting the Discharge Hose

Use a commercially available hose, hose connector and hose bands. A large diameter hose is most efficient. Long, small diameter hoses will increase friction loss and reduce pump performance and adversely affect performance.

Priming

Remove the priming cap at the top of the delivery port. Fill pump body with water and refit priming cap tightly.

Open gate valve on delivery line if fitted, turn on engine and run at full speed during priming.

Allow up to 3 minutes to prime.

Never attempt to operate pump without priming first. Extended dry operation will destroy pump seal.

If unit has been run dry, stop the engine immediately, allow the pump to cool before adding priming water.

Hydraulic Shock

If the water flow is suddenly terminated by closing a valve, without stopping the pump first, it can cause hydraulic shock. This can travel back to the pump causing serious damage. To prevent pump damage install a by-pass or safety relief valve.

Safety Relief Valve. Fits to priming port (suitable for high pressure pumps)

8 BAR …

suits Fire Chief, 3" & 4" SX pumps (s/code Q078908-3408)

10 BAR …

suits twin impeller pumps (s/code Q078908-3410)

Pressure relief valves are recommended for high pressure pumps. However, they offer limited protection from hydrostatic shock. It is the responsibility of the installer to ensure that a suitable valve is used according to the application. A pump damaged by a pressure spike is not covered by warranty, even if a pressure relief valve has been fitted.

NOTE: QP602 only -

The QP602 mechanical seal oil chamber is supplied without oil. Please top up with oil (viscosity ISO32). Maximum oil capacity is 250cc to 300cc.

EMERGENCY USE ONLY … low oil cut-out on Honda engines can be disabled by disconnecting the yellow wire that leads to the starter.
NOTE engine warranty may be affected.

Cavitation

Your pump is cavitating if knocking noises and vibrations can be heard when it is operating. If you continue to operate your pump when it is cavitating, it will be damaged.

How to avoid cavitation

- Minimise the number of valves and bends in suction line
- Suction length should be as short as possible
- Suction pipe should be at least the same diameter as the pump inlet connection
- Use long radius bends
- Do not allow air into the suction line
- Ensure adequate submergence, at least 5.3 times the suction hose diameter

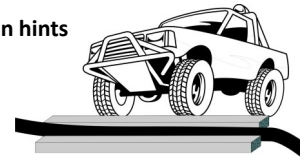
Handy service hints

1. To maximize pump life, **drain pump after use** and flush out with clean, fresh water. **NOTE:** Water freezing in the pump chamber will damage the casing. This is not covered under warranty.
2. Read engine manufacturer's owner's manual thoroughly and service as recommended.
3. The mechanical seal in your pump is a wearing part. Mechanical seal failure due to normal wear and tear is not covered under the GO warranty.

   It is the owner's responsibility to ensure the integrity of the mechanical seal in your QP pump set is checked regularly. In the event that your pump is leaking water at the back end, (this can be visibly checked through the safety weep hole on the back casing of pump), you must replace the mechanical seal. Failure to do so could cause water ingress in your engine and voids warranty.
4. Store pump in a dry, safe location when not in use.
5. If storing for long periods, drain fuel from engine and tank.
6. Viton seals are available for pumping a wide range of liquids. These include diesel fuel, and some agricultural chemical products. For details of compatibility contact us. NOTE: Fire damaged Viton elastomers emit a dangerous acid that can cause serious health effects.
7. Our pumps are specifically designed to pump water. Pumping other liquids may shorten life and impact on warranty. See above clause.
8. Pumping water containing solids will prematurely wear pump components, and may impact warranty.
9. Ensure that the correct size strainer is installed on the suction hose at all times, even on trash pumps.
10. Trash pumps; do not attempt to pump liquid that contains more than 25% solid material.

Service/Installation hints

Hydrostatic Shock



Prevent hydrostatic shock by using thick planking either side of the hose where it crosses roadways.

Strainer Placement

Place strainer on bed of rocks or inside an old bucket. Alternatively use a pontoon or float to keep pump strainer clear of debris.

TROUBLESHOOTING

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of an issue check the Troubleshooting information shown below.

PUMP TROUBLESHOOTING		
SYMPTOM	**POSSIBLE PROBLEM**	**SOLUTION**
Pump does not take on water.	Not enough priming liquid in the housing?	Add liquid
	Engine speed too low?	Increase throttle
	Strainer plugged?	Clean strainer
	Suction hose damaged?	Replace or repair hose & clamps
	Air leak at suction port?	Check that fittings are tight & sealed
	Pump is located too high above water line?	Move pump closer to water
	Debris collecting in pump housing?	Clean pump housing
	Too much distance between impeller and volute.	Adjust clearance by adding shims or replace impeller. Min. .010" -Max. .020
	Water leaking out weep hole between pump and engine?	Check condition of mechanical seal & gaskets, between pump end and engine housing
	Suction lift or discharge head too high.	Check hose/pipe installation
Pump takes in water, little or no discharge.	Engine speed too low?	Increase throttle speed
	Suction strainer partially plugged?	Clean strainer
	Impeller/volute worn?	Adjust clearance by adding shims or replace impeller/volute
Suction hose leaks at inlet	Fittings/clamps are not sealed properly?	Tighten, replace or add clamp. (Keep extra seals on pump)
	Hose diameter is too large?	Use smaller diameter hose or replace hose
Discharge hose does not stay on coupling.	Pressure too high?	Check pressure, add additional clamp
	Hose kinked or end blocked?	Check hose
Impeller does not turn, pump is hard to start.	Impeller jammed or blocked?	Open pump cover and clean dirt and debris from inside housing
	Impeller and volute binding?	Adjust clearance by removing shim from behind impeller
	Defective engine?	See Engine Owners Manual

Engine Troubleshooting; refer to engine manufacturer's manual

FREE EXTENDED WARRANTY

Engine Warranty

Warranty for engines fitted to our products is the responsibility of the engine manufacturer or his representative and subject to their terms and conditions, and operating instructions included with the product.

QP 5 year warranty

GO Industrial warrants all QP self priming centrifugal pumps, whether used for domestic or commercial applications, to be free of faulty workmanship or material for a period of 5 years from the date of supply to the end user.

GO will replace or repair, at our discretion, any faulty pump free of charge subject to the following conditions.

The GO 5 year warranty naturally does not cover the following:-

1. Normal wear and tear, misuse, improper installation, negligent handling, failure to follow operating instructions or to carry out maintenance.
2. Pumping of chemicals, salt or corrosive fluids.
3. Unauthorised repair or attempted repair (i.e. not authorised by us)
4. Shipping or transit damage
5. Use of non-genuine parts.

The warranty is valid only for the original consumer purchaser and non transferable.

Note:- This warranty is limited to the cost of the product and does not include third party costs including pump installers, plumbers etc. unless expressly authorised by us in writing.

Warranty Claims

When claiming warranty, consumers must give evidence to us of date of purchase, model and serial number of the product, and the claimant's name, address and telephone number.

To claim warranty, you will need to provide the following data:-

1. Written confirmation of your claim.
2. Proof of purchase.
3. Where necessary, full installation data, including installation design drawings where appropriate.

Costs generated by a service call from an authorised GO Industrial Service Agent will incur a travel, removal and re-installation fee if the Service Agent is required to judge warranty issues.

In the event that the product is not readily accessible for inspection, warranty service will be denied or suspended pending availability of the whole item.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The benefits under the GO Industrial warranty are in addition to other rights under Australian Consumer Law.